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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,519	10/17/2003	Sami Nassar	16869D-085700US	2126

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EXAMINER

SONG, JASMINE

ART UNIT	PAPER NUMBER
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2188

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/688,519

Applicant(s)

NASSAR, SAMI

Examiner

Jasmine Song

Art Unit

2188

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2003.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-64 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 40-61 is/are allowed.
6) ☒ Claim(s) 1-11, 13, 15-22, 27-32, 35-39 and 62-64 is/are rejected.
7) ☒ Claim(s) 12, 14, 23-26, 33 and 34 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 10/17/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Drawings

2. The drawings filed on 10/17/2003 have been approved by the Examiner.

Oath/Declaration

3. The applicant's oath/declaration has been reviewed by the examiner and is found to conform to the requirements prescribed in 37 C.F.R. 1.63.

Claim Objections

4. Claim 50 is objected to because of the following informalities:

In claim 50, lines 6, second "and" should be deleted.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2188

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-11,13,15-22,27-32,35-39 and 62-64 are rejected under 35

U.S.C. 102(b) as being anticipated by Paulson., US 6,112,319.

Regarding claim 1, Paulson teaches an access method in a storage device comprising:

receiving received data in connection with a first operation on the storage device (Fig.2, step 210 to step 220);

performing the first operation (it is taught as performing storing address and storing data in new cell in the step 255 and 265 of Fig.2) if a predetermined data sequence (a predetermined data sequence is taught as write address) in the received data (the received data is taught as the address list) is not detected (step 250 to 255 to 265 of Fig.2, it is taught as write address is not in the address list); and

performing a predetermined operation that is not the first operation (it is taught as read operation, step 260 of Fig.2) in response to detecting the predetermined data sequence in the received data (step 250 to 260 of Fig.2).

Regarding claim 2, Paulson teaches further comprising performing the first operation in addition to performing the predetermined operation, in response to detecting the predetermined data sequence in the received data (Fig.2, step 250).

Regarding claim 3, Paulson teaches the predetermined operation is performed instead of the first operation, in response to detecting the predetermined data sequence in the received data (Fig.2, step 250 to 260, it is write address in is the address list).

Regarding claim 4, Paulson teaches the received data further includes a second data sequence in addition to the predetermined sequence, wherein the predetermined operation is indicated by the second data sequence (Fig.4A to 4N, it is taught as requests list indicates that requests W1, W2 and R1 have been received).

Regarding claim 5, Paulson teaches performing the predetermined operation produces result data (step of 260-265).

Regarding claim 6, Paulson teaches further comprising receiving a read operation on the storage device and producing the result data in response to the read operation (step of 260-265).

Regarding claim 7, Paulson teaches the step of producing result data includes storing the result data in a memory component of the storage device at a predetermined location in the memory component, wherein the read operation includes address information indicative of the predetermined location (Fig.2, step 265).

Regarding claim 8, Paulson teaches the first operation is a write operation, wherein performing the first operation includes storing the received data in a memory component of the storage device (step 255-265 of Fig.2).

Regarding claim 9, Paulson teaches performing the predetermined operation produces result data that is stored in a data store other than the memory component (Fig.2, step 265).

Regarding claim 10, Paulson teaches performing the predetermined operation produces result data that is stored in the memory component (Fig.2, step 265).

Regarding claim 11, Paulson teaches the received data comprises an address portion and a data portion (col.9, lines 62 to col.10, lines 10), wherein the data portion comprises the predetermined data sequence (Fig.4E).

Regarding claim 13, Paulson teaches the received data comprises an address portion and a data portion (col.9, lines 62 to col.10, lines 10), wherein the address portion comprises the predetermined data sequence (it is taught as address list).

Regarding claim 15, Paulson teaches a storage device having a memory component and a control component (Fig.1, read verifier system), the control component configured to operate according to the method of claim 1.

Regarding claim 16, Paulson teaches the control component is further configured to communicate with a computing device (Fig.1, I/O device).

Regarding claim 17, Paulson teaches a method for operating a data storage device comprising:

receiving first data associated with a write operation (it is taught as receiving address list with a write request, step 210-220 of Fig.2);

if the first data includes a predetermined sequence (a predetermined data sequence is taught as write address, step 250 to 260 of Fig.2), then performing at least a first operation other than the write operation (it is taught as read operation, step 260 of Fig.2); and

if the first data does not include the predetermined sequence (step 250 to 255 to 265 of Fig.2, it is taught as write address is not in the address list), then performing the write operation including storing at least some of the first data to a memory (it is taught as performing storing address and storing data in new cell in the step 255 and 265 of Fig.2).

Regarding claim 18, Paulson teaches performing the first operation generates result data, wherein responsive to a subsequent read operation, the result data is produced as a response to the read operation (step of 260-265).

Regarding claim 19, Paulson teaches further comprising storing the result data in a data store other than the memory (Fig.2, step 265).

Regarding claim 20, Paulson teaches further comprising storing the result data in the memory (Fig.2, step 265).

Regarding claim 21, Paulson teaches the result data is stored beginning at a predetermined location in memory and the subsequent read operation includes an address indicative of the predetermined location (Fig.3B).

Regarding claim 22, Paulson teaches a method for accessing a storage device comprising:

communicating a first write operation to a storage device (it is taught as request W1 was received by the request tracker routine, Fig.4A), the first write operation having associated therewith first data comprising address data and write data (it is taught as address cell and data cell), wherein the write data is written to a memory location of a memory indicated by the address data (col.9, lines 62 -66);

communicating a second write operation to the storage device (Fig.4B, a subsequent W2 request is received), the second write operation having associated therewith second data comprising a predetermined data sequence, wherein the storage device performs a predetermined operation other than a write operation in response to detecting the predetermined data sequence (Fig.4A-4N); and

communicating a read operation subsequent to the second write operation (col.10, lines 61-63), wherein the predetermined operation produces result data, wherein the storage device responds to the read operation with the result data (Fig.4C and col.10, lines 56-65).

Regarding claim 27, Paulson teaches the storage device is configured to perform a plurality of predetermined operations (it is taught as a plurality of read and write operations).

Regarding claim 28, Paulson teaches the second data further comprises a command data sequence that is indicative of the predetermined operation (Fig.4B).

Regarding claim 29, Paulson teaches the second data further comprises address data, wherein the predetermined data sequence constitutes the address data (Fig.4B).

Regarding claim 30, Paulson teaches the result data is stored in a data store other than the memory (Fig.2, step 265).

Regarding claim 31, Paulson teaches the result data is stored beginning at a predetermined location in the memory (Fig.2, step 265).

Regarding claim 32, Paulson teaches a method for accessing a data storage device comprising:

communicating an indication to the data storage device to perform a first operation (it is taught as perform write operation), the first operation being one of a plurality of first device operations (it is taught as the write operation being one of two operations such as read and write, step 245 and 225 of Fig.2);

communicating first data (it is taught address list in Fig.2) to the data storage device, the first data being associated with the first operation (step 220-245 of Fig.2);

determining whether to perform at least a second operation based on data contained in the first data, the second operation being exclusive of the plurality of first device operations (Fig.2, it is taught as determining whether to perform pending read to this new address based on the write address in the address list).

Regarding claim 35, Paulson teaches further comprising performing the second operation instead of the first operation if the first data contains a predetermined sequence of data (Fig.2, step 250 to 260, it is write address in is the address list).

Regarding claim 36, Paulson teaches further comprising performing the second operation in addition to performing the first operation if the first data contains a predetermined sequence of data (Fig.2, step 250 to 260, it is write address in is the address list).

Regarding claim 37, Paulson teaches the first operation is a write operation and the first data is data to be written by the write operation (Fig.2).

Regarding claim 38, Paulson teaches the steps of communicating include asserting signals on one or more signal lines of the data storage device (Fig.1).

Regarding claim 39, Paulson teaches the steps of communicating include transmitting data over one or more data lines of the data storage device (Fig.1).

Regarding claim 62, Paulson teaches a method for accessing a memory device, the memory device configured to perform a plurality of first operations and a plurality of second operations, each of the first operations having an associated command, the memory device further configured to respond to one of the commands communicated thereto by performing its associated first operation, the method comprising:

detecting a predetermined sequence of two or more commands communicated to the storage device (it is taught as detecting a plurality of read and write commands has been received, Fig.4A-4N);

if the predetermined sequence of two or more commands is detected (Fig.4B, it is taught as W1 and a subsequent W2 request has been received), then performing one of the second operations (it is taught as performing read operation, col.10, lines 61-63).

Regarding claim 63, Paulson teaches the second operation that is performed is based on the sequence of commands comprising the predetermined sequence (R1 is performed based on the W1 and W2).

Regarding claim 64, Paulson teaches if a second predetermined sequence of two or more commands is detected (W1, W2 and R1 has been received) then performing another one of the second operations (it is taught as performing the read operation R2).

Allowable Subject Matter

7. Claims 40-61 are allowed.

Claims 12,14,23-26 and 33-34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. When responding to the office action, Applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections. See 37 C.F.R. 1.111 (c).

9. When responding to the office action, Applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist examiner to locate the appropriate paragraphs.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jasmine Song whose telephone number is 571-272-4213. The examiner can normally be reached on 7:30-5:30 (first Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung Sough can be reached on 571-272-6799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jasmine Song

Patent Examiner

January 3, 2007